

## **CONTENT-BASED GRAPH AUTHENTICATION**

### **ABSTRACT OF THE DISCLOSURE**

A system and method provide for content-based authentication of binary graphs. The method includes the step of receiving an electronic file having a graphical content. An object level representation of the graphical content is then generated and authentication information is added to the electronic file  
5 based on the object level representation. The method further provides for authenticating the object level representation with a text authentication algorithm. Thus, by building a bridge from graphs to text at the character level, the present invention allows authentication of graphs using suitable text  
10 document authentication algorithms. When pixel level precision of the graph is required, a pixel level authentication can be added. This layer lets the owner detect as well as localize changes in the graph at the pixel level. Both levels of authentication are optional depending on the application.